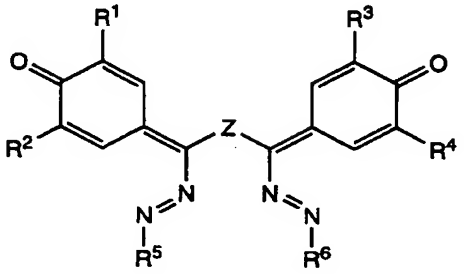
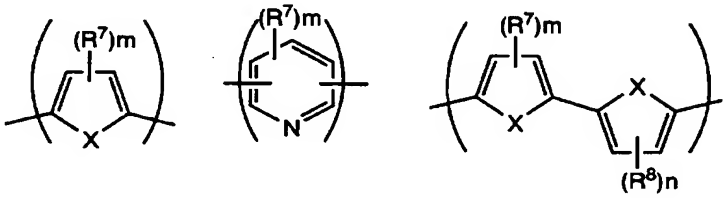
CLAIMS

1. A novel compound which is characterized by having a structure represented by the following general formula (I):



(I)

(in the general formula (I), R^1, R^2, R^3, and R^4 may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 12 carbon atoms, or an optionally substituted aryl group; R^5 and R^6 may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; Z represents a structure represented by the following general formula (F-A), (F-B) or (F-C):

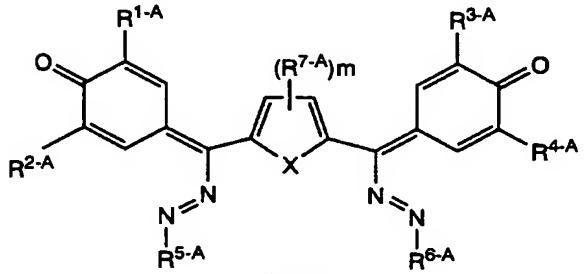


(F-A) (F-B) (F-C)

(in the formulae, R^7 and R^8 may be the same or different and each represents an optionally substituted alkyl group having from 1 to 12 carbon atoms; m and n each represents an integer of from 0 to 2; X represents a sulfur atom or an oxygen atom; and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring); and the substituents each represents

a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring).

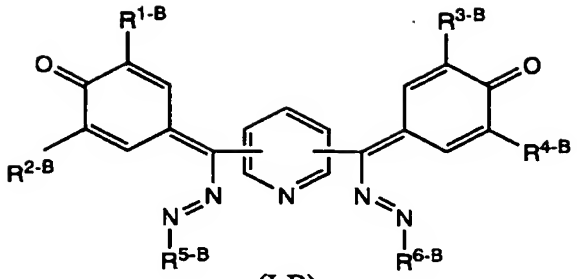
2. The novel compound according to claim 1, having a structure represented by the following general formula (I-A):



(I-A)

(in the formula (I-A), R^{1-A}, R^{2-A}, R^{3-A}, and R^{4-A} may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 12 carbon atoms, or an optionally substituted aryl group; R^{5-A} and R^{6-A} may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; R^{7-A} represents an optionally substituted alkyl group having from 1 to 12 carbon atoms; X represents a sulfur atom or an oxygen atom; m represents an integer of from 0 to 2; and the substituents each represents a halogen atom, a nitro group, an alkyl group having from 1 to 6 carbon atoms, an aryl group, a halogenated alkyl group having from 1 to 6 carbon atoms, or an alkoxy group having from 1 to 6 carbon atoms.)

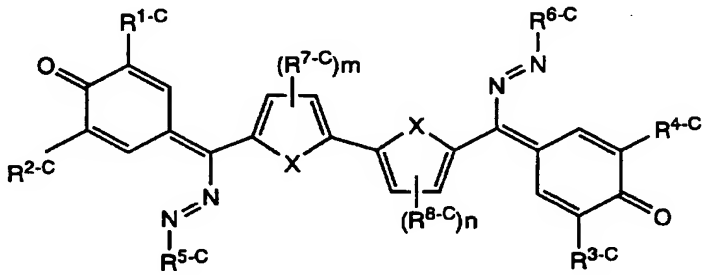
3. The novel compound according to claim 1, having a structure represented by the following general formula (I-B):



(I-B)

(in the formula (I-B), R^{1-B}, R^{2-B}, R^{3-B}, and R^{4-B} may be the same or different and each represents a hydrogen atom or an optionally substituted alkyl group having from 1 to 12 carbon atoms; R^{5-B} and R^{6-B} may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; and the substituents each represents a halogen atom, an alkyl group, an alkoxy group, an aryl group, a heterocyclic group, a fluorinated alkyl group, or a nitro group, and the substituents may be taken together to form a ring.)

4. The novel compound according to claim 1, having a structure represented by the following general formula (I-C):

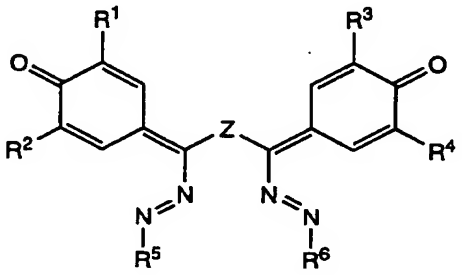


(I-C)

(in the formula (I-C), R^{1-C}, R^{2-C}, R^{3-C}, and R^{4-C} may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 6 carbon atoms, or an optionally substituted aryl group; R^{5-C} and R^{6-C} may be the same or different and each represents an optionally substituted aryl group or a heterocyclic group; R^{7-C} and R^{8-C} each represents a hydrogen atom or an optionally substituted alkyl

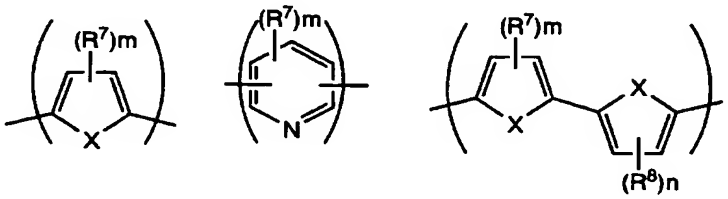
group having from 1 to 10 carbon atoms; X represents a sulfur atom or an oxygen atom; m and n each represents an integer of from 1 to 2; and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring.)

5. An electrophotographic photoreceptor including an electrically conductive substrate having thereon a photosensitive layer containing a charge generation substance and a charge transport substance, which is characterized by containing, as said charge transport substance, at least one kind of a compound having electron transport properties as represented by the following general formula (I):



(I)

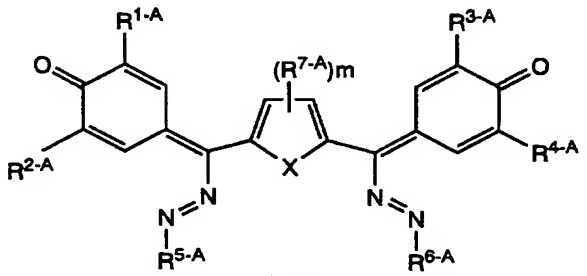
(in the general formula (I), R^1, R^2, R^3, and R^4 may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 12 carbon atoms, or an optionally substituted aryl group; R^5 and R^6 may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; Z represents a structure represented by the following general formula (F-A), (F-B) or (F-C):



(F-A) (F-B) (F-C)

(in the formulae, R^7 and R^8 may be the same or different and each represents an optionally substituted alkyl group having from 1 to 12 carbon atoms; m and n each represents an integer of from 0 to 2; X represents a sulfur atom or an oxygen atom; and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring); and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring).

6. The electrophotographic photoreceptor including an electrically conductive substrate having thereon a photosensitive layer containing a charge generation substance and a charge transport substance according to claim 5, which is characterized by containing, as said charge transport substance, at least one kind of a compound having electron transport properties as represented by the following general formula (I-A):

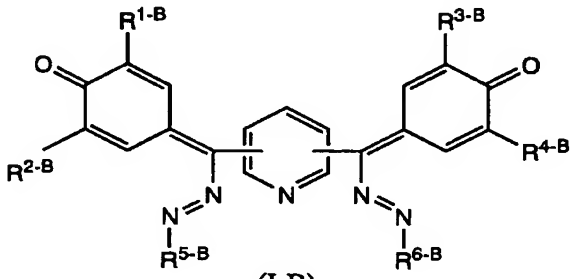


(I-A)

(in the formula (I-A), R^{1-A}, R^{2-A}, R^{3-A}, and R^{4-A} may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 12 carbon atoms, or an optionally substituted aryl group; R^{5-A} and R^{6-A} may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; R^{7-A} represents an optionally substituted alkyl group

having from 1 to 12 carbon atoms; X represents a sulfur atom or an oxygen atom; m represents an integer of from 0 to 2; and the substituents each represents a halogen atom, a nitro group, an alkyl group having from 1 to 6 carbon atoms, an aryl group, a halogenated alkyl group having from 1 to 6 carbon atoms, or an alkoxy group having from 1 to 6 carbon atoms.)

7. The electrophotographic photoreceptor including an electrically conductive substrate having thereon a photosensitive layer containing a charge generation substance and a charge transport substance according to claim 5, which is characterized by containing, as said charge transport substance, at least one kind of a compound having electron transport properties as represented by the following general formula (I-B):

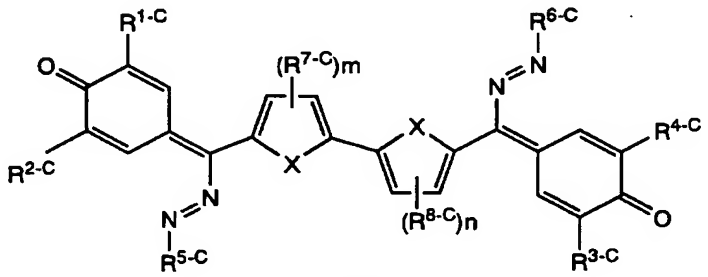


(I-B)

(in the formula (I-B), R^{1-B}, R^{2-B}, R^{3-B}, and R^{4-B} may be the same or different and each represents a hydrogen atom or an optionally substituted alkyl group having from 1 to 12 carbon atoms; R^{5-B} and R^{6-B} may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; and the substituents each represents a halogen atom, an alkyl group, an alkoxy group, an aryl group, a heterocyclic group, a fluorinated alkyl group, or a nitro group, and the substituents may be taken together to form a ring.)

8. The electrophotographic photoreceptor including an electrically conductive substrate having thereon a photosensitive layer containing a charge generation

substance and a charge transport substance according to claim 5, which is characterized by containing, as said charge transport substance, at least one kind of a compound having electron transport properties as represented by the following general formula (I-C):

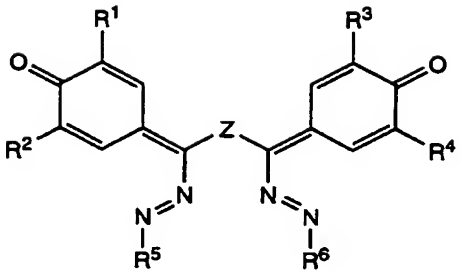


(I-C)

(in the formula (I-C), R^{1-C}, R^{2-C}, R^{3-C}, and R^{4-C} may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 6 carbon atoms, or an optionally substituted aryl group; R^{5-C} and R^{6-C} may be the same or different and each represents an optionally substituted aryl group or a heterocyclic group; R^{7-C} and R^{8-C} each represents a hydrogen atom or an optionally substituted alkyl group having from 1 to 10 carbon atoms; X represents a sulfur atom or an oxygen atom; m and n each represents an integer of from 1 to 2; and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring.)

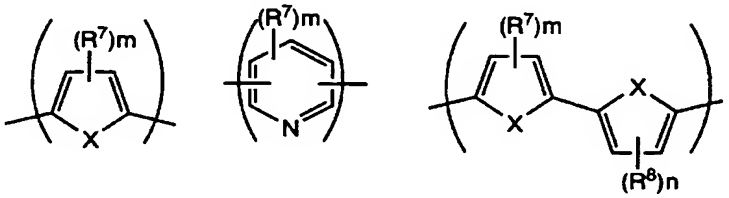
9. An electrophotographic photoreceptor including an electrically conductive substrate having thereon directly or via undercoat layer a single layer type photosensitive layer containing a charge generation substance, a charge transport substance, and a resin binder, which is characterized by containing, as said charge transport substance, a hole transport substance and at least one kind of a compound having electron transport properties as represented by the following general formula

(I):



(I)

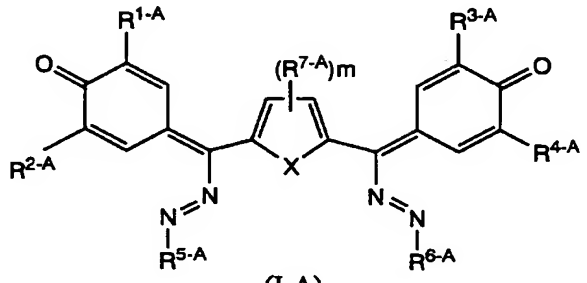
(in the general formula (I), R^1, R^2, R^3, and R^4 may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 12 carbon atoms, or an optionally substituted aryl group; R^5 and R^6 may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; Z represents a structure represented by the following general formula (F-A), (F-B) or (F-C):



(F-A) (F-B) (F-C)

(in the formulae, R^7 and R^8 may be the same or different and each represents an optionally substituted alkyl group having from 1 to 12 carbon atoms; m and n each represents an integer of from 0 to 2; X represents a sulfur atom or an oxygen atom; and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring); and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring).

10. The electrophotographic photoreceptor including an electrically conductive substrate having thereon directly or via undercoat layer a single layer type photosensitive layer containing a charge generation substance, a charge transport substance, and a resin binder according to claim 9, which is characterized by containing, as said charge transport substance, a hole transport substance and at least one kind of a compound having electron transport properties as represented by the following general formula (I-A):

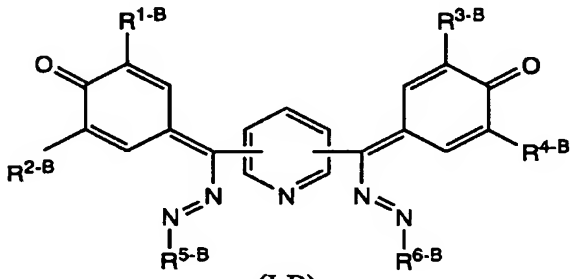


(I-A)

(in the formula (I-A), R^{1-A}, R^{2-A}, R^{3-A}, and R^{4-A} may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 12 carbon atoms, or an optionally substituted aryl group; R^{5-A} and R^{6-A} may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; R^{7-A} represents an optionally substituted alkyl group having from 1 to 12 carbon atoms; X represents a sulfur atom or an oxygen atom; m represents an integer of from 0 to 2; and the substituents each represents a halogen atom, a nitro group, an alkyl group having from 1 to 6 carbon atoms, an aryl group, a halogenated alkyl group having from 1 to 6 carbon atoms, or an alkoxy group having from 1 to 6 carbon atoms.)

11. The electrophotographic photoreceptor including an electrically conductive substrate having thereon directly or via undercoat layer a single layer type photosensitive layer containing a charge generation substance, a charge transport

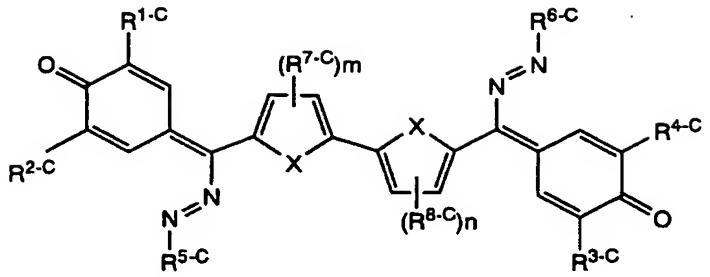
substance, and a resin binder according to claim 9, which is characterized by containing, as said charge transport substance, a hole transport substance and at least one kind of a compound having electron transport properties as represented by the following general formula (I-B):



(I-B)

(in the formula (I-B), $R^{1\text{-}B}$, $R^{2\text{-}B}$, $R^{3\text{-}B}$, and $R^{4\text{-}B}$ may be the same or different and each represents a hydrogen atom or an optionally substituted alkyl group having from 1 to 12 carbon atoms; $R^{5\text{-}B}$ and $R^{6\text{-}B}$ may be the same or different and each represents an optionally substituted aryl group or an optionally substituted heterocyclic group; and the substituents each represents a halogen atom, an alkyl group, an alkoxy group, an aryl group, a heterocyclic group, a fluorinated alkyl group, or a nitro group, and the substituents may be taken together to form a ring.)

12. The electrophotographic photoreceptor including an electrically conductive substrate having thereon directly or via undercoat layer a single layer type photosensitive layer containing a charge generation substance, a charge transport substance, and a resin binder according to claim 9, which is characterized by containing, as said charge transport substance, a hole transport substance and at least one kind of a compound having electron transport properties as represented by the following general formula (I-C):



(I-C)

(in the formula (I-C), R^{1-C}, R^{2-C}, R^{3-C}, and R^{4-C} may be the same or different and each represents a hydrogen atom, an optionally substituted alkyl group having from 1 to 6 carbon atoms, or an optionally substituted aryl group; R^{5-C} and R^{6-C} may be the same or different and each represents an optionally substituted aryl group or a heterocyclic group; R^{7-C} and R^{8-C} each represents a hydrogen atom or an optionally substituted alkyl group having from 1 to 10 carbon atoms; X represents a sulfur atom or an oxygen atom; m and n each represents an integer of from 1 to 2; and the substituents each represents a halogen atom, a nitro group, an alkyl group, an aryl group, a heterocyclic group, a halogenated alkyl group, or an alkoxy group, and the substituents may be taken together to form a ring.)

13. An electrophotographic apparatus which is characterized by being provided with the electrophotographic photoreceptor according to any one of claims 5 to 12 and performing a charge process by a positive charge process.